

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No. 97.429

Serial No. 09/004,395

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

Applicant: Gilmore et al.

Filing Date: January 8, 1998

Group: 1643 1645 #2

## U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
<i>m</i>	1	4,888,276	Dec. 19, 1989	Shelburne	435	7	
<i>m</i>	2	5,523,089	Jun. 4, 1996	Bergstrom et al.	424	262.1	
<i>m</i>	3	5,554,371	Sep. 10, 1996	Caputa et al.	424	234.1	
<i>m</i>	4	5,558,993	Sep. 24, 1996	Champion et al.	435	6	
<i>m</i>	5	5,620,862	Apr. 15, 1997	Padula et al.			

## OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

<i>m</i>	6	Anderson et al., "Prevalence of <i>Borrelia burgdorferi</i> in White-Footed Mice and Ixodes dammini at Fort McCoy, Wis.," <u>Journal of Clinical Microbiology</u> , Aug. 1987, pp. 1495-1497.
<i>m</i>	7	Barbour et al. "A <i>Borrelia</i> -Specific Monoclonal Antibody Binds to a Flagellar Epitope," <u>Infection and Immunity</u> , May 1986, p.p. 549-554.
<i>m</i>	8	Barbour et al. "Antibodies of Patients With Lyme Disease to Components of the Ixodes Dammini Spirochete," <u>Journal of Clinical Investigation</u> , August 1983, Vol. 72, pp. 504-515
<i>m</i>	9	Barbour et al. "Biology of <i>Borrelia</i> Species," <u>Microbiological Reviews</u> , Dec. 1986, pp. 381-400.
<i>m</i>	10	Barbour et al. "Heterogeneity of Major Proteins in Lyme Disease <i>Borreliae</i> : A Molecular Analysis of North American and European Isolates," <u>Journal of Infectious Diseases</u> , September 1985, Vol. 152, No. 3, pp. 478-484.
<i>m</i>	11	Barbour et al. "Lyme Disease Spirochetes and Ixodid Tick Spirochetes Share a Common Surface Antigenic Determinant Defined by a Monoclonal Antibody," <u>Infection and Immunity</u> , Aug. 1983, p. 795-804
<i>m</i>	12	Barbour et al. "Variation in a Major Surface Protein of Lyme Disease Spirochetes," <u>Infection and Immunity</u> , July 1984, pp. 94-100.
<i>m</i>	13	Barstad et al. "Variable Major Proteins of <i>Borrelia hermsii</i> ," <u>Journal of Experimental Medicine</u> , June 1985, Vol. 161, pp. 1302-1314.
<i>m</i>	14	Brandt et al. "Immunogenic Integral Membrane Proteins of <i>Borrelia burgdorferi</i> Are Lipoproteins," <u>Infection and Immunity</u> , April 1990, Vol. 58, No. 4, pp. 983-991.
<i>m</i>	15	Bencah, et al. "A Murine IgM Monoclonal Antibody Binds an Antigenic Determinant in Outer Surface Protein A, An Immunodominant Basic Protein of the Lyme Disease Spirochete" <u>The Journal of Immunology</u> , January 1, 1988, Vol. 140, 265-272, No. 1
<i>m</i>	16	Craft, et al. "Antibody Response in Lyme Disease: Evaluation of Diagnostic Tests" <u>The Journal of Infectious Diseases</u> , May 1984, Vol. 149, No. 5
<i>m</i>	17	Craft, et al. "Antigens of <i>Borrelia burgdorferi</i> Recognized during Lyme Disease"
<i>m</i>	18	Fikrig, et al. "Long-Term Protection of Mice from Lyme Disease by Vaccination with OspA" <u>Infection and Immunity</u> , March 1992, p. 773-777
<i>m</i>	19	Yigong Ge and Nyles W. Charon "FlaA, A Putative Flagellar Outer Sheath Protein, Is Not an Immunodominant Antigen Associated with Lyme Disease" <u>Infection and Immunity</u> , July 1997, p. 2992-2995
<i>m</i>	20	Yigong Ge and Nyles W. Charon "An Unexpected flaA Homolog Is Present and Expressed in <i>Borrelia burgdorferi</i> " <u>Journal of Bacteriology</u> , January 1997, p. 552-556
<i>m</i>	21	Robert L. Gordzicki and Allen C. Steere "Comparison of Immunoblotting and Indirect Enzyme-Linked Immunosorbent Assay Using Different Antigen Preparations for Diagnosing Early Lyme Disease" <u>The Journal of Infectious Diseases</u> , April 1988, Vol. 157, No. 4
<i>m</i>	22	Hansen, et al. "Immunochemical Characterization of and Isolation of the Gene for a <i>Borrelia burgdorferi</i> Immunodominant 60-Kilodalton Antigen Common to a Wide Range of Bacteria" <u>Infection and Immunity</u> , August 1988, p. 2047-2053
<i>m</i>	23	Hansen, et al. "Measurement of Antibodies to the <i>Borrelia burgdorferi</i> Flagellum Improves Serodiagnosis in Lyme Disease" <u>Journal of Clinical Microbiology</u> , February 1988, p. 338-346
<i>m</i>	24	Howe, et al. "Organization of Genes Encoding Two Outer Membrane Proteins of the Lyme Disease Agent <i>Borrelia burgdorferi</i> within a Single Transcriptional Unit" <u>Infection and Immunity</u> , October 1986, p. 207-212
<i>m</i>	25	Howe, et al. "A Single Recombinant Plasmid Expressing Two major Outer Surface Proteins of the Lyme Disease Spirochete" <u>Science</u> Volume 227, 1 October 1984; accepted 30 October 1984

immunity, October 1992, p. 4309-4321

Magnarelli, et al. "Comparison of an Indirect Fluorescent-Antibody Test with an Enzyme-Linked Immunosorbent Assay for Serological Studies of Lyme Disease" Journal of Clinical Microbiology, August 1984, p. 181-184Magnarelli, et al. "Comparison of an Indirect Fluorescent-Antibody Test with an Enzyme-Linked Immunosorbent Assay for Serological Studies of Lyme Disease" Journal of Clinical Microbiology, August 1984, p. 181-184Magnarelli, et al. "Comparison of an Indirect Fluorescent-Antibody Test with an Enzyme-Linked Immunosorbent Assay for Serological Studies of Lyme Disease" Journal of Clinical Microbiology, August 1984, p. 181-184Magnarelli, et al. "Comparison of an Indirect Fluorescent-Antibody Test with an Enzyme-Linked Immunosorbent Assay for Serological Studies of Lyme Disease" Journal of Clinical Microbiology, August 1984, p. 181-184Magnarelli, et al. "Comparison of an Indirect Fluorescent-Antibody Test with an Enzyme-Linked Immunosorbent Assay for Serological Studies of Lyme Disease" Journal of Clinical Microbiology, August 1984, p. 181-184Magnarelli, et al. "Comparison of an Indirect Fluorescent-Antibody Test with an Enzyme-Linked Immunosorbent Assay for Serological Studies of Lyme Disease" Journal of Clinical Microbiology, August 1984, p. 181-184

M	32	Sands, et al. "Analysis of American and European Isolates of <i>Borrelia burgdorferi</i> with Antiserum to a Recombinant Antigen" <u>The Journal of Infectious Diseases</u> August 1989, Vol. 160, No. 2
M	33	Padula, et al. "Use of Recombinant OspC from <i>Borrelia burgdorferi</i> for Serodiagnosis of Early Lyme Disease" <u>J. Clin. Microbiol.</u> 1994, Vol. 32
M	34	Rasiah, et al. "Use of a Hybrid Protein Consisting of the Variable Region of the <i>Borrelia burgdorferi</i> Flagellin and Part of the 83-kDa Protein as Antigen for Serodiagnosis of Lyme Disease" <u>J. Clin. Microbiol.</u> April 1994, p. 1011-1017
M	35	Sadziene, et al. " <i>Borrelia burgdorferi</i> Mutant Lacking Osp: Biological and Immunological Characterization" <u>Infection and Immunity</u> , April 1995, p. 1573-1580
M	36	Schaible, et al. "Monoclonal antibodies specific for the outer surface protein A (OspA) of <i>Borrelia burgdorferi</i> prevent Lyme borreliosis in severe combined immunodeficiency (scid) mice" <u>Proc. Natl. Acad. Sci USA</u> May 1990, Vol. 87, pp. 3768-3772
M	37	Schneider, et al. "Prognostic B-Cell Epitopes on the Flagellar Protein of <i>Borrelia burgdorferi</i> " <u>Infection and Immunity</u> January 1992, p. 316-319
M	38	Simpson, et al. "Antibody to a 39-Kilodalton <i>Borrelia burgdorferi</i> Antigen (P39) as a Marker for Infection in Experimentally and naturally Inoculated Animals" <u>Journal of Clinical Microbiology</u> , February 1991, p. 236-243
M	39	Simpson, et al. "Reactivity of Human Lyme Borreliosis Sera with a 39-Kilodalton Antigen Specific to <i>Borrelia burgdorferi</i> " <u>Journal of Clinical Microbiology</u> June 1990, p. 1329-1337
M	40	Steere, et al. "The Early Clinical Manifestations of Lyme Disease" <u>Annals of Internal Medicine</u> July 1983 Vol. 99, No. 7
M	41	Steere, et al. "Chronic Lyme Arthritis" <u>Annals of Internal Medicine</u> June 1979, Vol. 90, No. 6
M	42	Steere, et al. "The Spirochetal Etiology of Lyme Disease" <u>New England Journal of Medicine</u> March 31, 1983, Vol. 308, No. 13
M	43	Steere, et al. "Lyme Carditis: Abnormalities of Lyme Disease" <u>Annals of Internal Medicine</u> July 1980, Vol. 93, No. 1
M	44	Steere, et al. "Lyme Carditis: Cardiac Abnormalities of Lyme Disease" <u>Annals of Internal Medicine</u> July 1980, Vol. 93, No. 1
M	45	Wilske, et al. "Intrathecal Production of Specific Antibodies against <i>Borrelia burgdorferi</i> in Patients with Lymphocytic Meningoradiculitis (Bannwarth's Syndrome)" <u>The Journal of Infectious Diseases</u> , February 1986, Vol. 153, No. 2
M	46	Zhang, et al. " <i>Borrelia burgdorferi</i> Enzyme-Linked Immunosorbent Assay for Discrimination of OspA Vaccination from Spirochete Infection" <u>Journal of Clinical Microbiology</u> January 1997, Vol. 35 No. 1

Examiner <i>N. M. Minnifield</i>	Date Considered <i>8/25/99</i>
----------------------------------	--------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.